REED LAW OFFICE

#### HENRY M. REED III 2218 FRANKFORT AVENUE LOUISVILLE. KENTUCKY 40206-2408

(502) 899-3880 FAX (502) 899-3882 E-MAIL: hankreed@aol.com RECEIVED

March 8, 2004

MAR 1 7 7004

Mr. Thomas M. Dorman Environmental and Public Protection Cabinet Public Service Commission 211 Sower Blvd. PO Box 615 Frankfort, Kentucky 40602-0615 PUBLIC SERVICE COMMISSION

In re:

Cumberland County Water District Case No. 2001-114

Supplemental Petition

#### Mr. Dorman:

The Cumberland County Water District ("District") previously filed its Original Petition with the Public Service Commission of Kentucky ("Commission") seeking a Certificate of Public Convenience and Necessity for the construction of certain improvements to its water distribution system ("Original Projects") and the approval of financing provided by a Loan and Grant provided by the US Department of Agriculture, Rural Development ("USDARD").

On May 21, 2001 the Commission entered its Order granting the Certificate and approving the financing plan.

The District has proceeded to construct the Original Projects at a cost less than that originally anticipated with the result that there is now available to the District for Supplemental Projects certain USDARD Grant funds which the District would now like to utilize together with certain other monies available to it, for the construction of the Supplemental Projects identified in the enclosed Supplemental Petition.

Therefore, there is attached hereto ten copies of a Supplemental Petition accompanied by an Exhibit Addendum containing that information the District believes the Commission will require in granting its request.

If any additional information is required, please do not hesitate to contact the undersigned.

Sincerely yours,

CENTY M. ROBOTH & &

HMR:jmz Enclosures

ec:

Monty Rhody, P.E. Monarch Engineering, Inc. 556 Carlton Drive Lawrenceburg, Kentucky 40342

Mr. Kevin Antle District Loan Manager US Department of Agriculture, Rural Development 957 Campbellsville Road Columbia, Kentucky 42728

Mrs. Elizabeth Cornwall, Manager Cumberland County Water District 1236 Columbia Road Burkesville, Kentucky 42717

#### SUPPLEMENTAL APPLICATION FOR CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY OF CUMBERLAND COUNTY WATER DISTRICT

RECEIVED

CASE NO. 2001-114

MAR 17 2004

PUBLIC SERVICE COMMISSION

#### Index to Supplemental Petition

- 1. Supplemental Petition of Cumberland County Water District ("District") for Certificates of Public Convenience and Necessity.
- 2. Supplemental Certification of District Chairman Regarding Compliance with Public Service Commission Requirements.
- 3. USDARD Construction Bid Approval.
- 4. Final Engineering Report of Monarch Engineering, Inc., Engineers for District.

#### COMMONWEALTH OF KENTUCKY

#### BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE SUPPLEMENTAL APPLICATION OF	1
THE CUMBERLAND COUNTY	<i>)</i>
WATER DISTRICT, A WATER DISTRICT	á
ORGANIZED PURSUANT TO CHAPTER 74 OF THE	í
KENTUCKY REVISED STATUTES, IN CUMBERLANI	Σ)
COUNTY, KENTUCKY, FOR A CERTIFICATE	j
OF PUBLIC CONVENIENCE AND NECESSITY	)
AUTHORIZING AND PERMITTING SAID WATER	)
DISTRICT TO CONSTRUCT WATER DISTRIBUTION	)
SYSTEM IMPROVEMENTS, CONSISTING OF THE	)
SUPPLEMENTAL PROJECTS HEREIN	)
AFTER IDENTIFIED	)

#### SUPPLEMENTAL PETITION

Case No. 2001-114

Pursuant to KRS 278.023, this Supplemental Petition of the Cumberland County Water District of Cumberland County, Kentucky ("District") respectfully states:

- 1. That the District is a water district of Cumberland County, Kentucky created pursuant to the provisions of KRS 65.810 et seq. and existing under and by virtue of Chapter 74 of the Kentucky Revised Statutes for the purpose of operating, maintaining and managing a water distribution system ("System") as same presently exists and as same is proposed to be improved and expanded ("Projects").
- 2. That the address of said District is "Cumberland County Water District, 1236 Columbia Road, Burkesville, Kentucky 42717."
- 3. That the District was formed pursuant to the statutes cited, ordinances of the County of Cumberland, Kentucky, and an Order of the Public Service Commission entered on February 24, 1995 (Case No. 94-437) approving the merger of the former Marrowbone Water District and the former South Cumberland Water District, for the purpose of operating, managing, and maintaining the System.
- 4. That the boundaries of the District include substantially all of the County of Cumberland, Kentucky, except for those areas presently served (or to be served) by the City of Burkesville, Kentucky ("City").
  - 5. In 2001 the District filed its Original Petition with the Commission in Case No. 2001-114 seeking (a)

#### SUPPLEMENTAL CERTIFICATION OF DISTRICT CHAIRMAN REGARDING COMPLIANCE WITH PUBLIC SERVICE COMMISSION REQUIREMENTS

The undersigned certifies that he is the duly authorized and acting Chairman of the Cumberland County Water District (the "District") which intends to file with the Public Service Commission of Kentucky ("PSC") a Supplemental Petition seeking a Certificate of Public Convenience and Necessity in connection with the construction of additions, extensions, and improvements to the District's water distribution system, consisting of (a) Jones Fork area consisting of approximately 20,000 LF of 4-inch water line and a hydropneumatic booster pump station and (b) Ferris Fork and Casey Fork areas (located in Metcalfe County) consisting of approximately 30,000 LF of 4-inch water line and 6,000 LF of 3-inch water line (collectively, the "Projects").

The undersigned has executed this Certificate in reliance upon information and advice of Monarch Engineering, Inc., Lawrenceburg, Kentucky (the "Engineers") which firm has been retained by the District to provide engineering services in connection with the Projects.

The undersigned states that the proposed plans and specifications for the Projects have been designed to meet the minimum construction and operating requirements established in 807 KAR 5:066, Section 4(3) and (4), Section 5(1), Sections 6 and 7, Section 8(1) through (3), Section 9(1) and Section 10.

The undersigned states that all other State approvals or permits have been obtained.

The undersigned further certifies that the Projects are to be financed from surplus United States Department of Agriculture, Rural Development ("USDARD") Grant monies and a Grant of Tobacco Settlement monies from Metcalfe County Fiscal Court and will not require the District to become indebted or increase its present schedule of rates and charges for service.

Based upon the information supplied by the Engineers, it is estimated that construction of the Project will commence on or about March 15, 2004 and end on or about September 15, 2004.

Based upon the advice of the Engineers and USDARD, the undersigned believes that no increase in water rates will be required by the District, as existing rates are estimated to be sufficient to meet the expenses incident to the operation and maintenance of the District's water distribution system and pay and retire all of the District's outstanding Water Revenue Bonds.

Dated this 27 day of February, 2004.

**CUMBERLAND COUNTY WATER DISTRICT** 

Steve Capps,

Chairman



February 18, 2004

SUBJECT: Cumberland County Water Dsitrict

Water line extensions-Jones Ridge Contract Award Concurrence

TO: Rural Development Manager

Columbia, Kentucky

Based on the bids received and the recommendation of the consulting engineer, Rural Development concurs in the award of subject contract to the low bidder, United Pipeline, Inc., in the amount of \$130,635.00.

If you have any questions, please contact Julie Anderson, State Engineer, at (859) 224-7348.

-State Director

Rural Development

cc: Monarch Engineering, Inc.

Lawrenceburg, Kentucky

Henry Reed

Louisville, Kentucky

#### FINAL ENGINEERING REPORT

#### JONES RIDGE, FERRIS FORK AND CASEY FORK WATER SYSTEM EXTENSIONS CUMBERLAND COUNTY WATER DISTRICT CUMBERLAND COUNTY, KENTUCKY

**FEBRUARY 2, 2004** 

PREPARED BY MONARCH ENGINEERING, INC.



February 2, 2004

Mr. Steve Capps, Chairman Cumberland County Water District 1236 Columbia Road Burkesville, KY 42717

Re: Jon

Jones Ridge & Ferris Fork Water Line Extensions

Dear Mr. Capps:

On January 30, 2004, bids were received by the Cumberland County Water District for the construction of two projects consisting of water lines for the Jones Ridge area and also for the Ferris Fork & Casey Fork areas. Six contractors submitted bids for each project.

For the Jones Ridge project, the lowest Base Bid was submitted by United Pipeline, Inc. located in Tompkinsville, KY, in the amount of \$78,325.00. In addition, the amount of the Additive Alternative No. 1 was \$55,760.00. After further review of the bid submitted by United Pipeline, Inc., it was discovered that the unit price submitted for Item 1 of the Additive Alternate No. 1 of the Bid Schedule, 4-Inch PVC SDR 21 Water Line, was not in compliance with the contract requirements. The Contract Documents required that the contract would be awarded based upon the lowest Base Bid which United Pipeline, Inc. has complied with. For consideration of the Alternate portion, the contract documents required that similar items of the Base Bid proposed in the Alternate must have matching unit prices. The unit price submitted by United Pipeline, Inc. for Item No.1 in the Base Bid was \$3.00 per linear foot and for the Alternate was \$3.25 per linear foot. In recognition of the discrepancy, the unit price should be adjusted to conform with the contract requirements which would result in an adjusted and lower total cost for the Additive Alternate No. 1. The adjusted total cost of Additive Alternate No. 1 should be \$52,310.00. Combining the Base Bid with the Additive Alternate No. 1 results in a total amount of \$130,635.00. A review of the Final Project Budget indicates that the total project costs have been estimated to be \$171,000.00, copy of which is attached. According to our documents, we have determined that there are funds available from the previous water system extension project financed by USDA Rural Development in the amount of \$178,034.36. Therefore, based on the fact that sufficient funds are available to construct the Base Bid portion along with the Additive Alternate No. 1 portion of the Jones Ridge water system extension, we recommend that the Cumberland County Water



February 2, 2004 Page Two

District consider awarding a contract to United Pipeline, Inc., in the amount of \$130,635.00. This recommendation is contingent upon concurrence by Rural Development and also the Kentucky Public Service Commission.

In regard to the Ferris Fork and Casey Fork project, the lowest Base Bid was submitted by Central Pipe & Excavation, Inc. located in Red Boiling Springs, TN, in the amount of \$128,765.00. A review of the Final Project Budget indicates that the total project costs have been estimated to be \$177,000.00, copy of which is attached. As a result of discussions with Metcalfe County Judge Executive Donald Butler, he indicated at the Bid Opening that his agency had sufficient funds to contribute to the development of the entire project. Therefore, based on the commitment of funds from Metcalfe County to construct the Ferris Fork and Casey Fork water system extension, we recommend that the Cumberland County Water District consider awarding a contract to Central Pipe & Excavation, Inc., in the amount of \$128,765.00. This recommendation is contingent upon concurrence by the Kentucky Public Service Commission and receipt of funds to the District from Metcalfe County for the total project costs. The final budget includes an amount of \$13,353.76 for contingencies and in the event funds remain once the entire project is constructed, we recommend that these funds be returned to Metcalfe County.

Should you need additional information, please advise.

Sincerely,

Monty Rhody, P.E.

/jmr

cc Charles Blankenship Rural Development

Donald Butler
Metcalfe County Judge Executive

Attachments

# FINAL PROJECT BUDGET JONES RIDGE WATER SYSTEM EXTENSION CUMBERLAND COUNTY WATER DISTRICT CUMBERLAND COUNTY, KENTUCKY

#### **FEBRUARY 2, 2004**

#### **PROJECT COSTS:**

**RURAL DEVELOPMENT** 

**TOTAL PROJECT FINANCING** 

DEVELOPMENT	\$130,635.00
CONTINGENCY	12,926.78
ENGINEERING	13,899.56
INSPECTION	11,038.66
LEGAL	2,500.00
TOTAL PROJECT COST	\$171,000.00
PROJECT FINANCING:	

\$171,000.00

\$171,000.00

# FINAL PROJECT BUDGET FERRIS FORK & CASEY FORK WATER LINE EXTENSIONS CUMBERLAND COUNTY WATER DISTRICT CUMBERLAND COUNTY, KENTUCKY

#### **FEBRUARY 2, 2004**

#### **PROJECT COSTS:**

DEVELOPMENT	\$128,765.00
CONTINGENCY	13,353.76
ENGINEERING	13,700.60
INSPECTION	10,880.64
LEGAL	2,500.00
METER SETTINGS (26 @ \$300 Each)	7,800.00
TOTAL PROJECT COST	\$177,000.00
PROJECT FINANCING:	
METCALFE COUNTY FISCAL COURT	\$177,000.00
TOTAL PROJECT FINANCING	\$177,000,00

\$177,000.00

### CUMBERLAND COUNTY WATER DISTRICT JONES RIDGE WATER LINE EXTNSION BID TABULATIONS

MONARCH ENGINEERING, INC.

Lawrenceburg, KY 40342 Phone (502) 839-1310 Fax (502) 839-1373

556 Carlton Drive

BID DATE: JANUARY 30, 2004 @ 10:00 A.M. LOCAL TIME CUMBERLAND COUNTY, KENTUCKY

			UNITED PIPELINE, INC.	NC.	CENTRAL PIPE & EXCAVATION INC.	CAVATION INC.	TWIN STATES LITH HELE INC	TIES INC
			48 HAGAN STREET		4098 HAPPY SPRINGS ROAD	SS ROAD	2101 BRIMSTONE CREEK ROAD	REEK ROAD
1			TOMPKINSVILLE, KY 42167	Y 42167	RED BOILING SPRINGS, TN 37150	IGS, TN 37150	MOSS, TN 38575	
Š	DESCRIPTION	OUANTITY	LINO	TOTAL	TINU	TOTAL	TIND	TOTAL
ľ	BASE CONTRACT			1800	FRICE	COS	PRICE	COST
-	4-Inch C900 Water Line	1.300 LF	\$4.25	&\$ 525 OO	0000	4	7,71	
2	4-Inch PVC SDR 21 Water Line	5 700 1 5	900	07.020.00	05.214	00.088,014	\$5.85	\$7,605.00
	Born & Coop for A look Whater Inc.	2,100	3.00	00.001,71	3.35	19095.00	5.09	29013.00
2	bore & case for 4-inch water Line	30 LF	00.09	1,800.00	20.00	1500.00	20.00	1500.00
4	4-Inch Gate Valve	2 EA	350.00	700.00	200.00	1000.00	325.00	650.00
5	4-Inch Blowoff Assembly	2 EA	200.00	1,000.00	600.009	1200.00	500.00	1000.00
9	Connection	1 EA	200.00	500.00	1000.00	1000 00	00 008	00 008
7	Tandem Meter Setting	4 EA	400.00	1,600.00	450.00	1800.00	325.00	1300 00
80	3/4-Inch Service Tubing	50 LF	2.00	100.00	4.00	200.00	5.00	250.00
6	Hydropneumatic Pump Station	1 EA	90'000'09	50,000.00	37,600.00	37600.00	45 100 00	45100.00
	TOTAL BASE BID			78,325.00		79.385.00		43 100.00
	ADDITIVE ALTERNATE NO. 1							00.517.00
-	4-Inch PVC SDR 21 Water Line	13800 LF	3.00	41,400.00	3.35	46 230 00	00 4	00 010 02
2	3-Inch PVC SDR 21 Water Line	1500 LF	3.00	4,500.00	2.90	4.350.00	0.03	7 005 00
က	4-Inch Gate Valve	2 EA	350.00	700.00	500.00	1,000.00	325.00	00.030
4	3-Inch Gate Valve	1 EA	300.00	300.00	325.00	325.00	300.00	300.00
2	4-Inch Blowoff Assembly	2 EA	200.00	1,000.00	00:009	1,200.00	200.00	1.000.00
9	3-Inch Blowoff Assembly	1 EA	450.00	450.00	400.00	400.00	400.00	400 00
7	Standard Meter Setting	8 EA	300.00	2,400.00	350.00	2,800.00	300.00	2 400 00
8	Tandem Meter Setting	1 EA	400.00	400.00	450.00	450.00	325.00	325.00
6	3/4-Inch Service Tubing	130 LF	2.00	260.00	4.00	520.00	2.00	850.00
10	Pavement Replacement	30 LF	30.00	900.00	17.00	510.00	25.00	750.00
	TOTAL ADDITIVE ALTERNATE NO. 1			52,310.00		57 785 00		20.00

THE ABOVE IS A BRUE AND COUNTY WATER DISTRICT.

BY:

| County | Co

83,722.00

			GAKKISON CONSTR	IUCTION CO., INC	GARRISON CONSTRUCTION CO., INC. SOUTHERN BACKHOE, INC.	IOE, INC.	MEADOWS ENTERPRISES, INC.	RISES, INC.
			GREENSBIRG KY 42742	ROAD	296 WISE ROAD		PO BOX 343/464 S GRUNDY QUARLES HW	JNDY QUARLES HW
ITEM			יייים יייים		CAMPBELLSVILLE, KY 42718	KY 42718	GAINESBORO, TN 38562	8562
5		-		TOTAL	LIND	TOTAL	TIND	TOTAL
$\ \mathbf{g}\ $	DESCRIPTION	QUANTITY	PRICE	COST	PRICE	COST	LOIGO	1 1000
	BASE CONTRACT						LANCE	COST
-	4-Inch C900 Water Line	1,300 LF	4.65	\$6.045.00	1 60			
2	4-Inch PVC SDR 21 Water Line	5 700 1 E	76.6	00,000	00.7	\$8,880.00	11.50	\$14,950.00
m	Bore & Case for 4-Inch Water I ine	30 FF	3.74	21,318.00	7.00	39,900.00	4.00	22,800.00
-	4 Jack Oats Votes	30 -	64.66	1,939.80	80.00	2,400.00	75.00	2,250,00
- 4	THICH Cale Valve		375.50	751.00	340.00	680.00	450.00	00 006
٠	4-Inch Blowoff Assembly	2 EA	747.02	1,494.04	00.009	1,200.00	475.00	050.00
9	Connection	1 EA	1,103.40	1,103.40	1,000.00	1 000 00	20000	00.000
_	Tandem Meter Setting	4 EA	392.01	1,568.04	300.00	1 200 00	00.002,1	1,200.00
80	3/4-Inch Service Tubing	50 LF	6.23	311.50	4 00	00 000	00:001	i,buu.uu
6	Hydropneumatic Pump Station	1 EA	55.369.22	55 369 22	25,000,00	200.00	2:00	100.00
	TOTAL BASE BID			89 900 00	00.000,00	35,000.00	59,500.00	59,500.00
	ADDITIVE ALTERNATE NO. 1			03,300.00		91,460.00		104,250.00
_	4-Inch PVC SDR 21 Water Line	12000						
,	Plant Land Cold Call fail 6	138UU LF	3.74	51,612.00	7.00	96,600.00	4.00	55,200.00
٠,	3-Inch PVC SUR 21 Water Line	1500 LF	3.37	5,055.00	09'9	9,900.00	350	5 250 00
m	4-Inch Gate Valve	2 EA	375.50	751.00	340.00	680.00	460.00	3,230.00
4	3-Inch Gate Valve	1 EA	350.23	350.23	310.00	340.00	00.000+	900.00
2	4-Inch Blowoff Assembly	2 EA	747.02	1 494 04	340.00	310.00	400.00	400.00
9	3-Inch Blowoff Assembly	1 EA	680.31	680.31	800.00	00.080	4/5.00	950.00
_	Standard Meter Setting	8 EA	307 75	2 462 00	00.000	00.00	425.00	425.00
∞	Tandem Meter Setting		2000	2,464.00	260.00	2,080.00	300.00	2,400.00
6	3/4-Inch Service Tubino	130 10	10.260	392.01	300.00	300.00	400.00	400.00
.   =	Builde Company	130 LF	6.33	822.90	4.00	520.00	2.00	260.00
2	- avenient Aeplacement	30 LF	20.90	627.00	10.00	300.00	10.00	300 00
	TOTAL ADDITIVE ALTERNATE NO. 1			64,246.49		111.970.00		300.00

### MONARCH ENGINEERING, INC. Lawrenceburg, KY 40342 Phone (502) 839-1310 Fax (502) 839-1373 556 Carlton Drive

### FRRIS FORK AND CASEY FORK AREAS CUMBERLAND COUNTY WATER DISTRICT CUMBERLAND COUNTY, KENTUCKY WATER SYSTEM EXTENSIONS

BID TABULATIONS

BID DATE; JANUARY 30, 2004 @ 10:00 A.M. LOCAL TIME

ITEM NO.						•		
ITEM NO.			4098 HAPPY SPRINGS ROAD	SS ROAD	48 HAGAN STREET		2404 DELINES, INC.	, inc.
NO.			RED BOILING SPRINGS, TN 37150	IGS, TN 37150	TOMPKINSVILLE, KY 42167	7 42167	MOSS, TN 38575	CEEK KD
Š			TINO	TOTAL	UNIT	TOTAL	LIND	TOTAL
	DESCRIPTION	QUANTITY	PRICE	COST	PRICE	COST	PRICE	COST
	BASE CONTRACT							
-	4-Inch PVC SDR 21 Water Line	29,000 LF	3.35	\$97,150.00	\$3.25	\$94.250.00	4 05	6447 450 00
2	3-Inch PVC SDR 21 Water Line	5,500 LF	2.90	15,950.00	3.00	16 500 00	89.6	20.240.00
က	Bore & Case for 4-Inch Water Line	60 LF	45.00	2,700.00	00.09	3 600 00	00.5	20,000.00
4	Bore & Case for 3-Inch Water Line	30 LF	40.00	1,200.00	00.09	1,800.00	50.00	3,000,00
2	Creek Crossing for 4-Inch Water Line	200 LF	25.00	5,000.00	50.00	10,000.00	30.00	00.000,0
9	Creek Crossing for 3-Inch Water Line	40 LF	23.00	920.00	20.00	2,000.00	30.00	1 200 00
7	4-Inch Gate Valve	5 EA	280.00	1,400.00	350.00	1,750.00	325.00	•
8	3-Inch Gate Valve	2 EA	260.00	520.00	300.00	600.00	300.00	
6	Connection	2 EA	700.00	1,400.00	1,200.00	2,400.00	800.00	
10	4-Inch Blowoff Assembly	5 EA	385.00	1,925.00	200.00	2,500.00	200.00	
7	3-Inch Blowoff Assembly	2 EA	300.00	00:009	450.00	900.00	400.00	
	TOTAL BASE BID			128,765.00		136.300.00		
THE ABI	THE ABOVE IS A TROMBER AND COMPLETE AND LATION OF BIDS RECEIVED AT 10:00 A.M., LOCAL TIME, FRIDAY, JANUARY 30, 2003 AT THE CUMBERLAND COUNTY WATER DISTRICT.  BY:    A MONTY   Passe	ON OF BIDS RECE	2/2/04 DATE	CAL TIME, FRIDAY, J.	ANUARY 30, 2003 AT TH	IE CUMBERLAND CC	DUNTY WATER DISTRICT	

			GARDISON CONSTRUCTION					
		_	JON I SNOW YOUR LANC.	LION CO., INC	MASON CONSTRUCTION CO., INC. MEADOWS ENTERPRISES, INC.	RISES, INC.	SOUTHERN BACKUOF INC	
		-	6960 GREENSBURG ROAD	AD	P O BOX 343/464 S GRUNDY DUARI ES HW 296 WISE BOAR	INDY CHARLES HW	206 WILE DOAD	OE, INC.
			GREENSBURG, KY 42743	13	CAINES OF COORSE	200	230 WISE ROAD	
ITEM			k: 41		GAINESDORO, IN 38	790	CAMPBELLSVILLE, KY 42718	KY 42718
Š	DESCRIPTION	OUANTITY	IND G	TOTAL	LIND	TOTAL	LINIT	TOTAL
	BASE CONTRACT			Ison	PRICE	COST	PRICE	COST
7	4-Inch PVC SDR 21 Water Line	29.000 1F	9	4				
2	3-Inch PVC SDR 21 Water Line	7 500 E	00.0	\$114,840.00	4.50	\$130,500.00	5.40	\$156,600.00
က	Bore & Case for 4-Inch Water Line	- COCC	3.50	19,250.00	3.75	20,625.00	5.00	27,500.00
4	Bore & Case for 3-Inch Water Line	200	81.16	4,869.60	75.00	4,500.00	90.00	5.400.00
5	Creek Crossing for 4-Inch Water Line	2000	68.9/	2,306.70	65.00	1,950.00	80.00	2.400.00
9	Creek Crossing for 3-Inch Water Line	700 2	41.46	8,292.00	25.00	5,000.00	100.00	20 000 00
7	4-Inch Gate Valve	3 4	39.91	1,596.40	20.00	800.00	100.00	4.000.001
80	3-Inch Gate Valve	2 4	331.50	1,657.50	450.00	2,250.00	340.00	1,700.00
6	Connection	5 4	300.73	601.46	400.00	800.00	310.00	620.00
10	4-Inch Blowoff Assembly	7 4	985.70	1,971.40	1,000.00	2,000.00	1,000.00	2,000.00
11	3-Inch Blowoff Assembly	5 6	289.58	2,947.90	475.00	2,375.00	650.00	3.250.00
	TOTAL BASE BID		504.31	1,008.62	425.00	850.00	00'009	1,200.00
				159,341.58		171,650.00		224,670.00

# PRELIMINARY ENGINEERING REPORT FOR THE CUMBERLAND COUNTY WATER DISTRICT WATER SYSTEM EXTENSIONS

JONES RIDGE, CASEY FORK & FERRIS FORK AREAS

**AUGUST 2003** 

#### PRELIMINARY ENGINEERING REPORT

#### WATER SYSTEM EXTENSIONS CUMBERLAND COUNTY WATER DISTRICT CUMBERLAND COUNTY, KENTUCKY

#### I. GENERAL

This Preliminary Engineering Report is intended to analyze the proposed water system extension that is being planned by the Cumberland County Water District to serve first time customers with potable water in the Jones Ridge, Casey Fork and Ferris Fork areas. Included in this report are maps of the proposed service area showing the intended routes of the water lines and the location of the major appurtenances. Included in this report are project cost estimates which outline all of the project costs along with the proposed financing scheme.

#### II. PROJECT PLANNING AREA

The areas to be served with potable water for the first time are located in Cumberland County and Metcalf County as shown on the attached maps. Those three areas are locally referred to as Jones Ridge, Casey Fork and Ferris Fork areas. Jones Ridge area is located just north of Burkesville off of Kentucky Highway 61. Casey Fork and Ferris Fork areas are located in Metcalf County near the Cumberland County / Metcalf County Line. These areas are delineated on the attached maps.

The topography of Jones Ridge area is a steep ridge and the Casey Fork and Ferris Fork areas are rolling hills. The land use in these areas is mainly agricultural with some light timber harvesting in the steeper sloped areas. Within the proposed service area there are no major commercial or industrial businesses expected.

The residents in these communities have never been served by a public water system and most rely on creeks, wells or community springs, which are known to be contaminated. There are no cisterns and thus there is no possibility that these residences can transport their water by commercial water haulers. People in these areas carry water to their homes by means of barrels, buckets, jugs, old milk cartons, or other containers. They often make daily trips to the nearest water source, none of which are monitored by an approved health agency. It is not anticipated that a significant growth pattern will emerge as a result of the implementation of a domestic water supply but rather that the standard of living for those residents will be greatly improved.

#### III. EXISTING FACILITIES

The Cumberland County Water District owns and operates its water distribution system that serves nearly 1,750 residential and nonresidential customers that reside throughout

Cumberland County. This Water District is the result of a merger between the Marrowbone Water District and the South Cumberland Water District, both of which District's serve the rural areas of Cumberland County. This merger was completed in 1996 and was a part of a project that linked the two District's together via a transmission line through the Jackson Hollow, along with an expansion to the water treatment plant which is located in the Marrowbone service area. The Water District's were formed in 1960's and at that time the Marrowbone system built a water treatment plant to treat water that was supplied by the Cumberland River. The South Cumberland system opted to purchase all of its water supply from the City of Burkesville.

As a result of the merger, the treatment plant located near the Leslie community continues to provide water to all of the old Marrowbone system which is located north of the Cumberland River, and also provides water to a portion of the old South Cumberland system which is located south of the Cumberland River. In addition, the old South Cumberland area continues to be supplied by the City of Burkesville and the City of Albany.

The Water District operates the water system through a Board of Commissioners which consists of the chairman and four commissioners which are appointed by the Cumberland County Fiscal Court.

#### IV. NEED FOR THE PROJECT

This project is intended to eliminate a serious health hazard in the communities in which it will serve by providing first time potable water service to those residents that reside within those communities. As mentioned earlier, the use of unsafe and potentially contaminated water for drinking and other vital human needs is prevalent. It is well known and confirmed by the local health agency that ground water, springs, and surface water from creeks and streams is unfit for human consumption.

It is anticipated that 29 homes will be immediately affected by the project and potentially 15 more that could use the water service shortly after the project is put into service. These three areas which are mentioned above and shown on the attached maps are located in a geographic area where rock conditions are prevalent prohibiting the Water District from providing a water system by their own means. The terrain is over laden with visible rock outcroppings and numerous creek crossings with limited access along the public roadway.

The City of Albany has just completed a major extension of their water system which included the construction of a eight inch water line that terminated at the Clinton / Cumberland County boundary. The Cumberland County Water District is currently upgrading infrastructure and building a new booster pump station which will increase there capabilities of buying water from Albany from 50,000 gallons per day to 200,000 gallons per day. This supplemental supply will support the Water District during periods of low water supply and could even provide water to the City of Burkesville in an emergency.

#### V. <u>ALTERNATIVES CONSIDERED</u>

Based on the fact that there are no other major potable water suppliers that are situated to serve these three areas, the Cumberland County Water District is the only logical entity that is in position to provide water service. The Water District is regulated by the Kentucky Division of Water and also the Kentucky Public Service Commission. The City of Burkesville and the City of Albany supplies water to the District and they along with the Water District are the only major public water suppliers in Cumberland County. Therefore, based on these factors, the proposed method of service is the only alternative that exists to adequately serve these residences that reside within the Jones Ridge, Casey Fork and Ferris Fork areas.

#### VI. PROPOSED PROJECT

The proposed project consists of the installation of 50,000 feet of four inch water line and 7,000 feet of three inch water line and a hydropneumatic booster pump station the 30 new customers. An itemized cost estimate is included in this report and it outlines all of the individual construction items along with their associated estimated unit costs. A summary cost estimate summarizes all of the project costs and outlines the funding scheme for the project which is also included in this report.

This project proposes to serve new customers with a safe and potable water supply in the areas as shown on the attached maps. The current water system will continue to serve the Water District without over extending the capacity of the water supply and distribution system. Water lines are planned to be installed adjacent to the public rights of ways and all residences interested in obtaining water service will be served by the new water lines.

The project cost has been estimated to be \$384,000 and it is to be financed by \$171,000 loan from the Rural Development, 177,000 from Metcalf County Fiscal Court and \$36,000 from Cumberland County Water District.

#### VII. CONCLUSIONS AND RECOMMENDATIONS

Based on the desperate need for the residents in these communities to have a potable water supply it is recommended that the Cumberland County Water District pursue the financial assistance as outlined above in order that this unhealthy situation can be corrected. The Cumberland County Water District is the only major supplier of potable water within this rural area of Cumberland County and their system is situated such that these extensions as proposed could be made without affecting service to their existing customers.

## PRELIMINARY COST ESTIMATE FERRIS FORK & CASEY FORK CUMBERLAND COUNTY WATER DISTRICT NOVEMBER 2003

ITEM			UNIT	TOTAL
NO.	DESCRIPTION	QUANTITY	COST	COST
1	4-Inch PVC SDR 21 Water Line	26,550 LF	4.00	106,200.00
2	3-Inch PVC SDR 21 Water Line	5,200 LF	3.00	15,600.00
3	Bore & Case for 4-Inch Water Line	60 LF	50.00	3,000.00
4	Bore & Case for 3-Inch Water Line	20 LF	50.00	1,000.00
5	Creek Crossing for 4-Inch Water Line	200 LF	40.00	8,000.00
6	Creek Crossing for 3-Inch Water Line	40 LF	40.00	1,600.00
7	4-Inch Gate Valve	5 EA	400.00	2,000.00
8	3-Inch Gate Valve	2 EA	350.00	700.00
9	Connection	2 EA	1,000.00	2,000.00
10	4-Inch Blow Off Assembly	5 EA	600.00	3,000.00
11	3-inch Blow Off Assembly	2 EA	500.00	1,000.00
			***	
		Subtotal		\$144,100.00
		Contingency		13,900.00
·		Total Construction		\$158,000.00

## PRELIMINARY COST ESTIMATE JONES RIDGE AREA CUMBERLAND COUNTY WATER DISTRICT NOVEMBER 2003

#### **BASE CONTRACT**

ITEM				UNIT	TOTAL
NO.	DESCRIPTION	QUANTITY		COST	COST
1	4-Inch PVC C900 Water Line	1,200	LF	\$4.50	\$5,400.00
2	4-Inch PVC SDR 21 Water Line	5,400	LF	4.00	21,600.00
3	4-Inch Gate Valve	2 E	ΞA	400.00	800.00
4	Connection	1 E	ΞA	1,000.00	1,000.00
5	4-Inch Blow Off Assembly	2 8	EA	600.00	1,200.00
6	Tandem Meter Setting	4 E	ĒΑ	400.00	1,600.00
7	3/4-Inch Service Tubing	200 L	_F	3.00	600.00
8	Hydropneumatic Pump Station	1 E	A	60,000.00	60,000.00
		Subtotal			\$92,200.00
		Contingency			9,800.00
		Total Construct	tion		\$102,000.00

## PRELIMINARY COST ESTIMATE JONES RIDGE AREA CUMBERLAND COUNTY WATER DISTRICT NOVEMBER 2003

#### ALTERNATE AREA

ITEM			LINUT	
NO.	DESCRIPTION	OLIANITITY	UNIT	TOTAL
1	4-Inch PVC SDR 21 Water Line	QUANTITY	COST	COST
2	3-Inch PVC SDR 21 Water Line	12,630 LF	4.00	50,520.0
 3		1,500 LF	3.00	4,500.0
	Bore & Case for 4-Inch Water Line	30 LF	50.00	1,500.0
4	4-Inch Gate Valve	3 EA	400.00	1,200.0
5	3-Inch Gate Valve	1 EA	350.00	
6	3-Inch Blow Off Assembly	2 EA		350.0
7	Standard Meter Setting		500.00	1,000.00
8	Tandem Meter Setting	8 EA	300.00	2,400.00
9	3/4-Inch Service Tubing	1 EA	400.00	400.00
	C/4 Mon Service Tubing	450 LF	3.00	1,350.00
		O-shara i		
		Subtotal		\$63,220.00
		Contingency		6,780.00
		Total Construction		\$70,000.00

# PRELIMINARY COST ESTIMATE JONES RIDGE, CASEY FORK AND FERRIS FORK AREAS CUMBERLAND COUNTY WATER DISTRICT NOVEMBER 2003

#### ENTIRE PROJECT AREA

PROJECT COST	S
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DEVELOPMENT	
CONTINCENCY	\$299,520.00

CONTINGENCY 30,480.00

ENGINEERING DESIGN 31,000.00

CONSTRUCTION INSPECTION \_\_\_\_\_23,000.00

TOTAL PROJECT COSTS \$384,000.00

#### PROJECT FINANCING

RURAL DEVELOPMENT	
44===	\$171,000.00

METCALF COUNTY FISCAL COURT 177,000.00

ADDITIONAL FUNDS NEEDED TO COMPLETE ALTERNATE BID 36,000.00

TOTAL PROJECT FINANCING \$384,000.00







